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FOCUS RING ARRANGEMENT FOR SUBSTANTIALLY ELIMINATING UNCONFINED PLASMA IN A PLASMA PROCESSING CHAMBER

ABSTRACT

A focus ring assembly configured to substantially encircle a chuck of a plasma processing chamber. The focus ring assembly includes an annular dielectric body; and an electrically conductive shield surrounding the annular dielectric body. The electrically conductive shield is configured to be electrically grounded within the plasma processing chamber and includes a tube-shaped portion being disposed outside of the annular dielectric body and surrounding at least part of the annular dielectric body. The electrically conductive shield further includes an inwardly-protruding flange portion being in electrical contact with the tube-shaped portion. The flange portion forms a plane that intersects the tube-shaped portion. The flange portion is embedded within the annular dielectric body.